1015-46-2 Edward Odell* (odell@math.utexas.edu), University of Texas at Austin, Department of Mathematics, 1 University Station - C1200, Austin, TX 78712-0257. Embeddings in Banach space theory.

It is a classical result that any separable Banach space X embeds isometrically into C[0, 1], a space with a basis. Thus X, a space perhaps lacking a basis, can be coordinatized in this fashion. We will discuss some recent results of the form: if X has a certain property then X can be embedded into a coordinatized space with the same property. This type of result has applications in universal theory. For example one can prove that there exists a separable reflexive space which isomorphically contains all separable uniformly convex Banach spaces. This answers a 1980 question of J. Bourgain. The embedding technique employed uses a combinatorial result dependent upon the fact that closed games are determined. The properties suitable for this approach can be stated in terms of a game or equivalently in terms of weakly null trees in Banach spaces. Many of the theorems we discuss were obtained jointly by the author and Th. Schlumprecht. (Received January 31, 2006)